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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,424	02/08/2001	Paras A. Shah	COMP:0187/FLE (P00-3008)	5601
7590	11/03/2003		EXAMINER KNOLL, CLIFFORD H	
Michael G. Fletcher Fletcher, Yoder & Van Someren P.O. Box 692289 Houston, TX 77269-2289			ART UNIT 2189	PAPER NUMBER 4
DATE MAILED: 11/03/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/779,424

Applicant(s)

SHAH, PARAS A.

Examiner

Clifford H Knoll

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, the "as ordered by the first logic device" is unclear, because it is not clear what if any structural limitation is being claimed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15, 20-23, 25-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kelly (US 5996036).

Regarding claims 1, 6, 9, and 25, Kelly discloses methods and system means for temporarily storing transaction entries (e.g., col.9, lines 30-36); selecting one of the

plurality of temporarily stored entries and enqueueing the selected one (e.g., col.9, lines 44-46).

Regarding claims 2, 7, 10, and 26, Kelly also discloses storing in a bank of registers (e.g., col.8, lines 15-21).

Regarding claim 3, Kelly also discloses storing entries simultaneously (e.g., col.9, lines 31-36).

Regarding claims 4, 8, 11, and 27, Kelly also discloses determining whether a posted write is present and enqueueing the posted write, if the posted write transaction is not present then determining whether a read completion is present and enqueueing the read completion (e.g., col.14, lines 12-15), if the read completion transaction is not present (e.g., col.17, lines 40-46) determining whether a delayed/split transaction entry is present and enqueueing the delayed/split transaction entry (e.g., col.20, lines 12-19).

Regarding claim 5, Kelly also discloses enqueueing each entry into the transaction order queue one at a time during successive clock cycles (e.g., col.9, lines 7-12).

Regarding claim 12, Kelly discloses temporary storage to store a plurality of transaction entries (e.g., col.9, lines 30-36), selecting and ordering the plurality of entries (e.g., col.9, lines 44-46).

Regarding claim 13, Kelly also discloses storing in a bank of registers (e.g., col.8, lines 15-21).

Regarding claim 14, Kelly also discloses determining whether a posted write is present and enqueueing the posted write, if the posted write transaction is not present then determining whether a read completion is present and enqueueing the read

completion (e.g., col.14, lines 12-15), if the read completion transaction is not present (e.g., col.17, lines 40-46) determining whether a delayed/split transaction entry is present and enqueueing the delayed/split transaction entry (e.g., col.20, lines 12-19).

Regarding claim 15, Kelly also discloses enqueueing each entry into the transaction order queue one at a time during successive clock cycles (e.g., col.9, lines 7-12).

Regarding claim 20, Kelly discloses determining whether a posted write is present and enqueueing the posted write, if the posted write transaction is not present then determining whether a read completion is present and enqueueing the read completion (e.g., col.14, lines 12-15), if the read completion transaction is not present (e.g., col.17, lines 40-46) determining whether a delayed/split transaction entry is present and enqueueing the delayed/split transaction entry (e.g., col.20, lines 12-19).

Regarding claim 21, Kelly also discloses enqueueing one transaction entry per clock cycle (e.g., col.9, lines 7-12).

Regarding claim 22, Kelly discloses a processor and memory, and a transaction order queue circuit configured to process transactions from the memory device the transaction order queue circuit being adapted to encode a plurality of simultaneous transaction entries (e.g., col.9, lines 44-46).

Regarding claim 23, Kelly also discloses determining whether a posted write is present and enqueueing the posted write, if the posted write transaction is not present then determining whether a read completion is present and enqueueing the read completion (e.g., col.14, lines 12-15), if the read completion transaction is not present

(e.g., col.17, lines 40-46) determining whether a delayed/split transaction entry is present and enqueueing the delayed/split transaction entry (e.g., col.20, lines 12-19).

Regarding claim 28, Kelly discloses methods and system means for temporarily storing transaction entries (e.g., col.9, lines 30-36), selecting one of the plurality of temporarily stored entries and transmitting according to priority (e.g., col.8, line 62 – col.9, line 2).

Regarding claim 29, Kelly also discloses entries are stored simultaneously in a bank of registers (e.g., col.9, lines 44-46).

Regarding claim 30, Kelly also discloses determining whether a posted write is present and enqueueing the posted write, if the posted write transaction is not present then determining whether a read completion is present and enqueueing the read completion (e.g., col.14, lines 12-15), if the read completion transaction is not present (e.g., col.17, lines 40-46) determining whether a delayed/split transaction entry is present and enqueueing the delayed/split transaction entry (e.g., col.20, lines 12-19).

Thus are claims 1-15, 20-23, 25-30 rejected.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-19, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly in view of Shah (US 2002/0083247).

Regarding claim 16, Kelly discloses a first logic device, and a plurality of registers configured to receive a plurality of transaction entries as ordered by the first logic device (e.g., col.8, line 62 – col.9, line 2); a second logic device to receive the entries and programmed to select transactions according to PCI or PCI-like specifications (e.g., col.5, lines 52-55). Kelly does not expressly mention the PCI-X bus; however this PCI enhancement specification is broadly known in the industry as exemplified by Shah. Shah discloses the PCI-X specification as the enhanced version of the PCI specification (e.g., paragraph [0009]).

It would be obvious to combine Kelly with Shah, because Shah teaches the PCI-X bus as an enhancement and applicable in queue-ordering environments such as that taught by Kelly. Therefore it would be obvious, at the time the invention was made, for a person of ordinary skill in the art to combine Kelly with Shah.

Regarding claim 17, Kelly also discloses receiving transaction entries from an input source (e.g., col.9, lines 30-36).

Regarding claim 18, Kelly also discloses storing in a bank of registers (e.g., col.8, lines 15-21).

Regarding claim 19, Kelly also discloses selecting a single entry to send to the transaction order queue (e.g., col.9, lines 44-46).

Regarding claim 24, Kelly discloses a processor and memory, and a transaction order queue circuit configured to process transactions from the memory device the transaction order queue circuit being adapted to encode a plurality of simultaneous transaction entries (e.g., col.9, lines 44-46). Kelly does not expressly mention the computer having network capabilities; however Shah discloses this ubiquitous feature. Shah discloses network capabilities (e.g., paragraph [0003]).

It would be obvious to combine Kelly with Shah, because Shah teaches a common range of computer capabilities in a system applicable to queue-ordering environments such as that taught by Kelly. Therefore it would be obvious, at the time the invention was made, for a person of ordinary skill in the art to combine Kelly with Shah.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gujral (US 6032231) discloses a transaction order queue.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

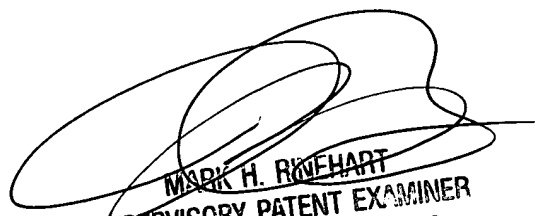
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2100.

chk



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